

REMARKS

I. Status of the Claims

Claims 1-16 are pending in the application. Claims 15 and 16 are withdrawn from consideration. Claims 1-14 stand rejected. Claim 11 is objected to because it defines a misspelled term. Applicant respectfully requests reconsideration and allowance of claims 1-14 and new claims 17-19 in view of the remarks and amendments presented here.

II. Added Claims 17 - 19

Applicant has added new claims 17-19 above. Applicant believes in good faith that the thermostable glazings defined by new claims 17-19 are within the scope of the present application and do not define an invention independent and distinct from the thermostable glazings defined by presently pending claims 1-14. Support for the claim 17 is found throughout the application and specifically at page 29, first paragraph, where it is stated:

A glass panel as prepared in Sample No. 1095, was subjected to post-deposition thermal processing. Specifically, it was tempered and **bent** at temperatures reaching a maximum of 635°C. The spectral properties of the tempered and bent glazing were found to be substantially the same for heat treated and as deposited samples. (Emphasis added).

Support for claim 18 is found throughout the application and specifically at page 6, paragraph 1, where it is stated:

Optionally, the CuO_x solar coating is combined with other coating layers, for example, an anti-reflection coating layer, a **coloration coating layer**, etc., which also are thermostable, in an integrated coating on the surface of the glazing substrate. (Emphasis added).

Support for claim 19 is found throughout the application and specifically at page 6, paragraph 1, where it is stated:

The thermostable solar coating is formed of copper oxide. In accordance with preferred embodiments, the thermostable glazing unit has **visible transmittance ranging between 5% and 50%** and comprises a substantially transparent substrate with a substantially transparent, thermostable solar coating on a surface of the substrate. (Emphasis added).

III. The Objection to Claim 11 is Overcome

Applicant thanks the Examiner for indicating the misspelling of “zinc stannate” in claim 11, as submitted. Applicant has amended claim 11 accordingly and, thus, believes that claim 11 is in condition for allowance.

IV. Claims 1, 3-7, and 10-14 are Not Anticipated by Gillery

Claims 1, 3-7, and 10-14 are rejected under § 102(b) over Gillery. Applicant respectfully traverses this rejection in view of the following remarks and the declaration submitted herewith.

Claim 1, the sole rejected independent claim, defines a thermostable glazing comprising a substantially transparent substrate with a substantially transparent, thermostable solar coating on a surface of the substrate, wherein the substantially transparent, thermostable solar coating consists essentially of sputter deposited copper oxide.

Gillery fails to disclose each and every element of claim 1, and accordingly, does not anticipate the present application. For example, Gillery does not disclose a *thermostable* coating. On page 7 of the present application, Applicant describes the thermostable properties of the coatings disclosed:

The solar coatings disclosed here are thermostable in that, when subjected to thermal stress, they are resistant, against degradation, most notably in their capacity to block or transmit light. In addition, the term “thermostable” refers to a coating or coated article of manufacture which substantially retains its characteristic mechanical properties, such as body integrity, surface continuity, tensile strength and adhesiveness (e.g., between coating and substrate). The term

“thermal stress” is herein taken to mean the stresses encountered upon exposure to high temperatures used for heat treatment, e.g., for tempering or bending the glazing substrate. Typically, such temperatures are in the range of 590°C to 650°C. The solar coatings of the invention are thermostable at the tempering temperature of the glazing substrate and/or at its bending temperature.

Nowhere does Gillery disclose a thermostable coating because none of the Gillery coatings can retain their characteristic mechanical properties, or the optic values as transmittance and reflectance when heated to temperatures as high as 590 °C to 650 °C. When heated to these high temperatures, the silver metallic layer in Gillery would be oxidized and the characteristic properties of the coating would be changed.

In support of the position that none of the coatings disclosed in Gillery are thermostable, Applicant submits herewith a declaration pursuant to 37 C.F.R. § 1.132 executed by Huseyin Parlar, a technical expert employed by the assignee of the present application. Mr. Parlar is not a named inventor in the present application.

Because Gillery does not disclose a thermostable coating, it does not anticipate present claim 1. The remaining subject claims are patentable by virtue of their dependency from claim 1. Similarly, new claims 17-19, which also define a thermostable coating, are patentable for the reasons presented above. Thus, Applicant respectfully requests withdrawal of the present rejection and allowance of the claims.

V. Claims 2, 8, and 9 are Not Obvious in view of Gillery

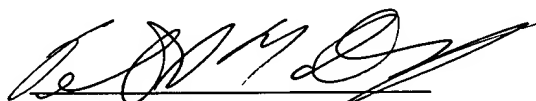
Claims 2, 8, and 9 are rejected under § 103(a) solely over Gillery. Applicant respectfully traverses this rejection.

Claims 2, 8, and 9 are not obvious obvious Gillery, because Gillery does not teach or suggest each and every element of these claims. For example, claims 2, 8, and 9, which all depend directly or indirectly from claim 1, define a *thermostable* coating. As discussed in detail above, Gillery neither teaches a coating that is thermostable nor suggests that the coatings disclosed therein are thermostable. Further, based on the disclosure in Gillery, there is no reasonable expectation that the coatings in Gillery are thermostable as defined in the present application, because Gillery does not contemplate heating the disclosed coating. Accordingly, Applicant respectfully requests that the rejection of claims 2, 8, and 9 be removed.

VI. Conclusion

Having addressed all outstanding issues, Applicant respectfully requests withdrawal of all rejections, allowance of the claims and issuance of this application.

Respectfully submitted,

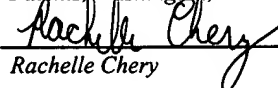


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Rachelle Chery

20-Feb-03

Date



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
(003897.08139)

Applicants: Hülya Demiryont Paper No.: 14
Application No.: 09/327,594 Group Art Unit: 1775
Filed: June 8, 1999 Examiner: McNeil, Jennifer C.
Title: THERMOSTABLE GLAZING

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VERSION WITH MARKINGS TO SHOW CHANGES MADE

In the Claims:

Please amend claim 11 as follows:

11. (Amended) The thermostable glazing according to claim 10, wherein the coloration coating layer is formed of SnO_2 , WO_3 , ZnO , Zinc ~~stanate~~stannate, Bi_2O_3 , or Si_3N_4 .

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